

FOR OFFICIAL USE.

REPORTS

TO THE

LOCAL GOVERNMENT BOARD

ON

PUBLIC HEALTH AND MEDICAL SUBJECTS.

(NEW SERIES No. 29.)

Dr. E. P. Manby's Report to the Local
Government Board upon the Sanitary
Circumstances and Administration of the
Holywell Registration District.



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Dr. E. P. Manby's Report to the Local Government Board upon the Sanitary Circumstances and Administration of the Holywell Registration District.

ARTHUR NEWSHOLME,
Medical Officer,
29th April, 1910.

There are six sanitary districts comprised within the Holywell Registration District, and the subjoined table gives certain particulars with regard to these districts; all figures, except those of rateable and assessable values, are taken from the official report of the 1901 census:—

Districts.	Area in Acres.	Population.		Rateable Value.	Assessable Value.
		1901.	1891.		
Buckley Urban (including Buckley Hawarden).*	2,034	5,780	4,997	£ —	£ 17,339
Connah's Quay Urban*...	3,748	3,396	2,477	22,648	—
Flint Borough ...	3,450	4,625	5,247	20,943	—
Mold Urban* ...	854	4,263	4,457	16,753	—
Holywell Rural ...	64,470	23,999	24,685	—	123,224
Holywell Urban...	747	2,652	2,894	8,607	—
Total ...	75,303	44,715	44,757	—	—

* Since 1901 the population of Buckley, Connah's Quay, and Mold is thought to have risen to 6,200, 4,500, and 5,000 respectively.

In the course of the last thirty years these districts have received an exceptional amount of attention on the part of the Board, who have, during that period, issued many reports as to their sanitary circumstances.

Nevertheless, in view of the slowness of their progress in sanitary matters generally, and of the continuance of complaint to the Board regarding the persistence of conditions prejudicial to the comfort and health of their inhabitants, it was thought desirable that a further sanitary survey of these districts should be undertaken.

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In reporting on this survey I have considered that the elaboration of the previous reports need not be followed, as such reports are still extant, but I have endeavoured to set out briefly the more important matters calling for action on the part of the respective sanitary authorities.

BUCKLEY URBAN DISTRICT.

Buckley appears to have made some sanitary progress since it became an urban district in 1897. In particular the attention given by the council and its officers towards securing the systematic conversion of privies to pail-closets, the regular removal of the contents of these, and the kerbing and channelling of roads, may be commended.

The populous part of Buckley which stands on a ridge, at a considerable elevation, is badly in need of a proper drainage system. The Council have recognised the fact for about eleven years, but they fear to incur the cost of the undertaking. An engineer has been consulted, and has submitted schemes, but still the Council procrastinate.*

In the absence of a modern system of drainage, sewage passes to numerous ditches and stagnates there, forming a real danger to the health of the inhabitants of the district. Year by year since his appointment the medical officer of health has referred to the danger of these ditches, and the Council have spent, and are spending, a considerable amount of money upon the piping and cleansing of ditches—only palliative and not remedial measures.

The water supply of the district is almost entirely derived from the mains of the Hawarden Water Company. The quality of this water has been recently called in question, and the company are arranging to have the water filtered before distribution. In the higher part of Buckley, near the church, shortage of water is complained of, but elsewhere the supply appears to be adequate in quantity.

The condition of the Buckley *cowsheds* generally is unsatisfactory, but the Council decline to make regulations under the Dairies, Cowsheds and Milkshops Order. There appears to be unwillingness on the part of the Council to deal seriously with cowkeepers, and especially with those who keep but one or two cows, under insanitary conditions.

I found several *slaughterhouses* in an uncleanly condition, and the same remark applies to certain premises used for '*public baking*.' One of the slaughterhouses was used as a wash-house, one had a lair within it, and one had a foul open midden in close proximity to it.

The local byelaws do not prohibit the *keeping of swine* near dwellings, and I met with many objectionable instances of such keeping.

As a rule there is little to complain of with regard to the sanitary condition of dwellings in Buckley, but at Lane End and Spon Green there is need for structural improvement of houses and outbuildings. Some houses are without through ventilation.

The district is entirely without isolation hospital accommodation.

* Since the above was in type, the Council have submitted to the Board a scheme for the sewerage of this district.

RECOMMENDATIONS.

(1.) The Council should establish a modern system of sewers forthwith.

(2.) The Council are doing good work in regard to the conversion of privies to pail closets, and they should not desist therefrom in all places where water-closets could not be adopted until all privies are abolished in the more populous parts of the district.

(3.) Regulations should be made under Art. 13 of the Dairies, Cowsheds and Milkshops Order, 1885, and the regulations should be systematically enforced against all cowkeepers who sell milk regularly, even although the actual quantity sold be small.

(4.) Slaughterhouses and bakehouses should receive more sustained attention from the medical officer of health, and from the inspector of nuisances, than has been the case in the past. The keeping of swine should be regulated, and should be prohibited entirely in proximity to dwellings.

(5.) Attention should be given to those houses, at Spon Green and elsewhere in the district, which are in need of thorough renovation, and where dwellings are insanitary by reason of absence of thorough ventilation, or otherwise, they should be dealt with in an appropriate manner.

(6.) The Council should combine with neighbouring councils for the purpose of securing hospital accommodation for cases of infectious sickness.

CONNAH'S QUAY URBAN DISTRICT.

Connah's Quay was made an urban district in 1896. Since that time a more or less complete system of sewers has been provided in the town proper, at the cost of current revenue. Owing to the low-lying character of the town, the fall in the sewers is slight, and frequent flushing is required. There are three sewer-outfalls. One to the Wepre brook, or 'gutter,' one into the dock, and one under the railway to the marshland bordering the river Dee. There are now 387 water-closets, and some 561 privy-middens in Connah's Quay, but the Council are not sufficiently active in pressing property-owners to establish water-closets in place of privies. The scavenging of privy-middens is undertaken by the Council. Twice a year there is a general 'clean up' of the town, and at other times privies and ashpits are emptied at intervals by the aid of the Council's cart. The town should be divided into two districts for scavenging purposes, and systematic removal of privy and ashpit refuse should take place much more frequently than at present.

Except for one public water-spring, the water supply of the town of Connah's Quay is entirely from the mains of the Connah's Quay Gas and Water Company. This company have recently enlarged their works, and the source, quality and quantity of the supply appear to be unobjectionable.

The Council have adopted byelaws relating to nuisances, common lodging-houses, new streets and buildings, and slaughterhouses, and they have also made regulations under the Dairies, Cowsheds and Milkshops Order, 1885. It would seem that the provisions of the

building byelaws have not been strictly enforced in the past, and the requirements of the regulations as to the lighting of cowsheds have been largely disregarded.

Mr. W. E. Hughes, the inspector of nuisances, was formerly a grocer, and has no certificate of sanitary knowledge. He is, however, a man of intelligence and ability, and the comparatively satisfactory sanitary condition of the Connah's Quay district may with justice be attributed largely to his energy. If the Council would support him, I believe Mr. Hughes would bring about a much more rapid conversion of privies to water-closets than is at present taking place.

Mr. Hughes has only recently started keeping a journal, and Dr. Williams, the medical officer of health, keeps no books, except a register of notified infectious cases. The two officers appear to work well together.

The Council possess a small corrugated iron hospital capable of accommodating some eight cases of infectious sickness.

RECOMMENDATIONS.

(1.) The Council should endeavour to hasten the conversion of privies to water-closets, in the urban part of the district.

(2.) They should improve the arrangements as to scavenging, so as to secure the removal of house refuse and excreta from the neighbourhood of dwellings more frequently than at present.

(3.) The requirements of the byelaws as to new buildings, and the regulations as to dairies, cowsheds and milkshops, should be strictly enforced. All persons selling milk regularly—even if the quantity sold be but small—should be registered.

(4.) The medical officer of health and the inspector of nuisances should keep books in accordance with the terms of the Board's Order of March 23rd, 1891.

(5.) The Council should combine with neighbouring authorities for isolation hospital purposes.

FLINT BOROUGH.

This very ancient borough consists of a small compact urban portion, which may be spoken of as the town of Flint, and an extensive area, which is thinly populated, and is rural in character. In both the urban and rural portions of the borough there is much complaint of shortage of drinking-water.

The town is supplied from the mains of the Flint Gas and Water Company. This company appears to have fallen behind the times as regards enterprise and administration. Stand-pipes and fittings are not kept under sufficiently close inspection, and there is good reason to believe that the water-mains are worn out, and that much leakage takes place from them. The existing condition of affairs is creditable neither to the water company nor to the town.* In the interests of the community either the water undertaking should be taken over and modernised by the Corporation, or the water

* Several members of the Town Council are directors of the water company, and the secretary of the company is the borough surveyor.

company should obtain further powers and capital to enable them to renew their mains, and to increase their source of supply, and their area of distribution. At present the company are only compelled to supply by gravitation, and in consequence the higher parts of the districts are not served. Mount Pleasant, a district at the upper part of Flint town, is badly in need of a public water supply, and there is much complaint of shortage of water in the outlying district known generally as Flint Mountain. Attempts have been made to arrange a public supply for this district, but owing to opposition and expense the schemes have not matured. The question of the water supply of this portion of the borough should receive sustained attention from the Council, until a proper supply, reasonably near to the dwellings of residents, is available.

Second only in importance to water-supply is the question of conversion of the privy-middens, which constitute the chief method of excrement disposal in the urban portion of the borough, into water-closets. The privies, often defective and in foul condition, are a standing menace to the health of the community. Many of them are unduly close to dwellings, and many are used in common. As long as the water supply remained defective it was obvious that there could have been no general conversion of privies into water-closets, but the Town Council might have pressed for pail-closets. These receptacles are far less objectionable than are privy-middens. There are, however, only some 60 pail-closets in Flint.

There is much insanitary property in Flint town. This has been referred to in the reports of other medical inspectors who have visited the borough, but no serious attempt has been made by the Council to deal with the question in an effective manner. At present the most that the inspector of nuisances can secure by repeated requests, is a patching up, and a tinkering at, worn out property by landlords, who will not of their own initiative keep their property in good order. Some of the worst offenders in this respect are those who should be pioneers in sanitary matters, and be examples to their fellow property owners. Especially bad property exists below the railway, also in Chester Street, Swan Street, Princes or Princess Street, Chapel Street and Hill Street.

With regard to cowsheds the chief defect noticed was insufficient lighting. Several sheds were found to have defective pavement. In two instances I saw that the hands and arms of boys engaged in milking were fouled with dung and other dirt.

There are five common lodging-houses in Flint, only two of which were known to the medical officer of health, and to the inspector of nuisances. The local superintendent of police is inspector of common lodging-houses. There has been no proper measuring up and registering of these houses in recent years, and the structure of some of them, and of their outbuildings, is defective. Most of the beds in the lodging-houses are double—a very undesirable arrangement in the case of lodgings let to single persons.

Flint possesses byelaws, sanctioned in 1881, relating to scavenging, nuisances, common lodging-houses, new streets and buildings, markets and slaughter-houses. No copy of these byelaws could be found for me in the office of the Town Clerk, and the only copy available for reference by the inspector of nuisances is one he

has borrowed from an ex-councillor. Under the byelaws swine may not be kept nearer to a dwelling than 30 feet. This is unduly near, considering the urban character of the populous part of the borough.

The only provision in Flint for hospital isolation of cases of infectious sickness is two rooms in the old gaol. This is entirely unsuitable as a permanent arrangement, and it has not been made use of since 1907.

The medical officer of health, Dr. J. H. Williams, and the inspector of nuisances, Mr. J. P. Humphreys, work well together. Dr. Williams has a good knowledge of his district but he keeps no books or records, except a register of infectious cases notified to him. Mr. Humphreys holds the certificate of the Royal Sanitary Institute, and he appears to do his work well. With more support from the Council Mr. Humphreys would, I think, be able to secure marked improvement in the sanitary condition of Flint.

RECOMMENDATIONS.

(1.) The modernisation of the water supply of the town proper, and the provision of a convenient supply for Mount Pleasant are urgently called for.

Sustained endeavour should be made to bring about improvement in the water supply of the district known generally as Flint Mountain, so that residents thereabouts do not have to travel such unreasonable distances as at present to obtain water.

(2.) The Town Council should secure, as far as possible, the abolition of privy-middens in the town of Flint, and the substitution for them of water-closets.

They should also see that the number of closets used in common is diminished. Ash-middens should be covered, or preferably they should be replaced by sanitary dustbins scavenged regularly.

(3.) The Town Council should support their officers in a sustained endeavour to bring about the renovation, or demolition, of the many insanitary dwellings existing in the town, more especially in the areas mentioned in this report.

(4.) The dairies, cowsheds and milkshops in the borough should receive systematic attention from the medical officer of health, and from the inspector of nuisances; and in view of the importance of a "clean milk supply," strict enforcement of the regulations should be insisted on.

(5.) The common lodging-houses should be properly measured up, be registered, and be regularly inspected. The inspector of nuisances should be the inspector of common lodging-houses.

(6.) Copies of byelaws in force in the borough should be available. A new byelaw relating to the keeping of swine should be adopted so that it is not possible to keep these animals upon the limited area of ground existing at the back of many houses in the urban portions of the borough.

(7.) The Corporation should enter into combination with neighbouring councils to obtain the use of an efficient isolation hospital.

MOLD URBAN DISTRICT.

The town of Mold possesses a modern system of sewers, which has been recently extended, and a water supply from the mains of the Mold Gas and Water Company. The water comes from the south-eastern slopes of Moel Fammanau, and is said to be chemically pure, but I noticed that it deposits a film upon the interior of water bottles and jugs. Further analyses, not merely chemical, seem to be desirable in order that it may be ascertained whether some system of filtration before distribution is not called for. I am assured by the medical officer of health that there is an ample supply of water generally available; but on occasion the company has had to supplement its present supply from a well situated in the town, which at one time was the main source of water supply for Mold, and notices against waste of water are posted from time to time.

In the centre of the town of Mold dwellings are closely aggregated, and many of them are very old. Some of the houses hereabouts have become dilapidated and uninhabitable, and in the neighbourhood of Milford Street much worn-out property exists. Indeed this would seem to be a suitable area for demolition and reconstruction under the Housing of the Working Classes Acts. Most of the worst property, and the lowest class of tenant, is met with at the north end of the town. This property as a rule has a fair amount of space in the front and in the rear, and with systematic attention from the inspector of nuisances might be vastly improved.

I was much impressed by the general prevalence of privies and open middens in Mold. The town has a modern system of sewers, and a public water supply, but many residents appear to be content to allow accumulations of excretal filth, which could be readily removed by a water carriage system. Again and again I saw foul and dilapidated privy-middens existing on premises quite near to public sewers.

In some instances when middens are emptied, excretal filth has to be wheeled through houses. Many open privy-middens are unduly near dwellings, and householders complained to me of the foul smells to which they were on this account subjected.

The inspector of nuisances states that 50 per cent. of the houses in Mold have water-closets. I am inclined to think his estimate is too high, but in any case the percentage is low for a town possessing facilities for the water-carriage of excreta.

The Council should bring their town more into line with modern sanitary requirements without delay. Otherwise the visitors, whom it is now sought to attract by pamphlets advocating the salubrity of Mold, may go elsewhere. The Council have received many recommendations from their medical officer of health as to the need for conversion of privies, but they appear to turn a deaf ear to them.

No attempt has been made in Mold to enforce the regulations as to *dairies, cowsheds and milkshops*. I saw all the cowsheds known to the inspector, and I found each of them dark and dirty; moreover, two of them were badly paved, and one was in an unsuitable position close to dwellings. Milk from this cowshed was kept in the beer-cellar of the house.

Most of the *bakehouses* I saw had dirty floors, and several had dirty roofs. In Alyn Terrace the only window of a bakehouse

opens close to the door of a foul privy. In Griffith's Square a large open ash-midden is just beneath the window and immediately adjoining the door of a bakehouse—and on the same premises an unventilated water-closet opens directly into the flour store.

I met with many instances of swine kept in proximity to dwellings. This should not be allowed in an urban area like Mold.

The Council do not undertake public scavenging as usually understood. The property owners and householders have to remove house refuse and excretal filth from the receptacle to the public roadway, and then on request the Council provide hired horses, carts, and men to take the filth to the public tip. The Council should themselves undertake the entire work of scavenging, which should be systematically carried out at regular and frequent intervals.

The Council has a small corrugated iron hospital of eight beds at Argoed Farm, near Mold. The hospital is used only for small pox. It is approached by an indifferent road.

There is little conference between the medical officer of health and the inspector of nuisances of Mold, and the latter does not appear to accept readily suggestions made by the medical officer. I have no doubt whatever that much of the insanitary condition of Mold might be remedied by sustained action on the part of a competent and energetic inspector of nuisances. The present holder of the office—combined with that of surveyor—is Mr. W. B. Rowdon, who was formerly a schoolmaster in Mold. Mr. Rowdon is an educated and agreeable man, but he has had no adequate training in the duties of his office, and he does not hold the certificate of the Royal Sanitary Institute or other body conducting examinations of competency in the duties of sanitary inspector. I found that when making sanitary inspection of houses, Mr. Rowdon did not usually go upstairs, that he did not always visit the dairy when inspecting cowsheds, that notes made by him during inspections were crude in the extreme, and that the entries made in his journal were wanting in detail. He says he has no time to devote to systematic inspections, but I would point out that such inspections are among the most important duties of an inspector of nuisances. I met with instances of infringement of the building byelaws in force in Mold, and I learnt that Mr. Rowdon does not report such infringements in writing to the Council.

Mr. Rowdon prides himself upon the fact that he is on friendly terms with everyone in Mold, and that he has not served a statutory notice under the nuisance clause of the Public Health Act since 1905. Many premises are, however, in a condition requiring such notices to be served and enforced.

In the scavenging branch of his duties Mr. Rowdon has done fairly well, but there is, as I have explained, scope for further improvement in the arrangements for the scavenging of Mold.

As compared with systematic inspection of dwellings, bakehouses and the like, scavenging work does not bring Mr. Rowdon into much conflict with defaulting property-owners, hence firmness and determination are of less importance in the latter than they are in the former case.

RECOMMENDATIONS.

(1.) The most pressing need of the town of Mold in regard to sanitation is the substitution of water-closets for the many foul open privy-middens now existing. Where sewers are not available, earth closets with moveable receptacles scavenged regularly by officers of the Council should, as far as possible, be substituted for privy-middens.

(2.) There is also much need for the systematic inspection of houses in Mold, especially in the Milford Street area, and in the district known as "Lead Mills."

(3.) Supervision in a sanitary sense, of dairies, cowsheds and milkshops, and of bakehouses, is urgently called for in Mold, and compliance with the regulations should be insisted upon. Accurate registers of the premises above mentioned should be prepared and kept up to date.

(4.) The District Council should forthwith establish an efficient system of public scavenging for Mold.

(5.) There should be frequent conference between the medical officer of health and the inspector of nuisances, and both officers should keep books in accordance with the terms of the Board's Order of March 23rd, 1891. The inspector should be required to make written reports to the Council, and he should, as surveyor, report specifically when plans submitted, or houses erected, show infringements of the byelaws.

(6.) The Council should combine with neighbouring authorities with a view to providing adequate hospital accommodation for cases of infectious sickness.

HOLYWELL RURAL DISTRICT.

Water Supply.—The Council deserve credit for having given considerable attention in recent years to the improvement of the water supply of their district. A good deal however remains to be done, as some places are still without wholesome drinking water, while others have no supply of good water available, save at a long distance from dwellings.

The water supply of *Greenfield* has been commented on unfavourably by several of the Board's medical inspectors, and it still leaves much to be desired. The supply is afforded by a number of pumpwells and springs, but they are not, as a rule, conveniently near the dwellings, or where near they appear to be exposed to risk of contamination. No analytical evidence of the quality of the various water supplies at Greenfield is available, but from the point of view of convenience alone there is need for a public water supply. Greenfield is practically continuous with Holywell town, and as the Urban Council of Holywell are moving in the direction of securing a public water supply for their district from St. Winifred's Well, the present is obviously a suitable time for the Rural Council to endeavour by combination to bring about a public water supply for Greenfield.

In the *Halkyn district* special complaint has arisen as to the quality of the water supply of the hamlet known as the Catch, and in other places the supply is unduly far from the dwellings of those using it.

The water supply of *Pentre Ffwrndan* has formed the subject of repeated complaint by the medical officer of health. I saw an open dip-well there much exposed to risk of surface pollution, and the water of which looked foul and cloudy. Near by, a pump-well is apparently exposed to risk of contamination from slop-sewage, and another yields water which was reported to "stink" at times.

Llanasa parish is badly in need of a public water supply and the District Council have spent a considerable amount of money on preliminary works in the Garth valley without obtaining the amount of water which was expected. These works have been carried out at the instigation of, and under the direction of, the inspector of nuisances, who has some geological knowledge. The Council would be well advised to consult a skilled geologist and water engineer before expending further money on the work.

Ffynnongroew, in *Llanasa parish*, has a good supply of water, from a spring at the foot of a hill, but this is distant about half-a-mile from the farthest houses in the village, and is conveniently near to comparatively few houses.

Llwm, *Ysceifiog*, and the district thereabouts, are badly supplied with water, but the houses are scattered and the cost of a public supply would be very heavy.

Afon-wen lies just below *Caerwys*, which has a good public water supply. This is ample enough for *Afon-wen* too, but the residents in the latter place fear the cost of sharing *Caerwys*' water supply, and accordingly they continue to take their water from two dip-wells, a pump and a stream by the roadside. The dip-wells and the stream are exposed to risk of pollution, and the wells are at considerable distance from householders using the water.

The water supply of *Brynford* is derived from a dip-well about one-third of a mile from the village.

Northop has a public water supply, established by public subscription in 1888. It is apparently now no one's business to look after the supply, with the result that stand-pipes have become leaky. The water is exposed to risk of pollution in its course from the spring which furnishes it to the collecting reservoir.

Sewerage—The sewerage of *Bagillt*, which is much needed, is shortly to be undertaken. Schemes for the sewerage of certain other places in the rural district should also be put in hand. Especially is modern sewerage wanted at *Ffynnongroew*, where a large collection of stagnant sewage is held up through silting up of the outfall of existing drains and ditches to the *Dee Estuary*, and at *Mostyn*, *Northop Hall* and *Leeswood*. At *Gwernaffield*, *Greenfield*, and *Halkyn Catch*, drainage schemes are less urgently called for, but the Council should consider the matter of establishing small drainage schemes for these places. I saw in the neighbourhood of *Glandon Row*, *Greenfield*, sewage stagnating in ditches adjacent to dwellings.

Removal and disposal of excrement and house refuse.—Public scavenging is urgently called for at *Bagillt*, *Greenfield*, *Ffynnongroew*, *Mostyn*, *Northop*, *Northop Hall*, *Leeswood*, *Pontblyddyn*, and *Caerwys*. All of these places are of urban character, and the land adjacent to dwellings is not sufficient, as a rule, to allow of the

disposal of excreta and house refuse thereon. The inspectors of nuisances have not to any large extent pressed for the conversion of privy-middens, which constitute the prevailing method of disposal of excreta and house refuse in the district, into pail-closets, and the medical officers of health have taken no strong line in this respect. Many privy-middens were found to be foul, and more or less dilapidated, and there are too many instances in which one of these conveniences is shared by two or three families. This arrangement does not make for cleanliness and decency, and the Council should see that separate closet accommodation is provided, as far as possible, for every house in their district.

The registers relating to *dairies, cowsheds and milkshops* are out of date, and they still contain the names of persons who live in Connah's Quay and Buckley, which no longer form part of the rural district. Most of the cowsheds are deficient in their lighting, and many are dirty, and badly paved. Good advice in regard to these matters has been tendered by the medical officers of health in annual and other reports, but little or no attention has been paid to the systematic inspection of cowsheds throughout the district.

The number of *bakehouses and of slaughter-houses* in the district is unknown, and no registers are kept. Five slaughter-houses visited were found to be dirty, others, although old in structure, were fairly well kept. A very dirty bakehouse was seen at Caerwys. At Mostyn a most unsuitable underground bakehouse exists, and at Gronant there is one lighted only by borrowed light from a cellar. At a Gwern-y-mynydd bakehouse bread was found to be stored in close proximity to pig wash, dirty linen and decaying bones.

Dwelling-houses in the Holywell Rural District are fairly clean, as a rule, and I was informed that the habits of the people have undergone in this respect very marked improvement of recent years. Many houses are very old, and at Bagillt especially a number of decayed and uninhabitable dwellings exist. Dampness of house walls is frequently met with, and many houses are either back-to-back or are wanting in through ventilation. At Greenfield, Bagillt, and Dublin Row, much insanitary property exists, but with systematic attention from the sanitary officers this could be improved, or where improvement was not possible closure of the houses could be brought about.

The only accommodation available for the isolation of cases of infectious sickness in this large district is a small corrugated iron hospital at Bedw for small-pox.

Both the medical officers of health are engaged in general medical practice, and neither of the inspectors of nuisances possess the certificate of the Royal Sanitary Institute, or similar examining body. In the northern division of the district there is more work to be done than is possible by one inspector, and in consequence systematic inspections are the exception rather than the rule. Mr. J. P. Jones, the inspector for this district, is very earnest and hard working, but he is wanting in system. With a fully trained and energetic medical officer of health over him, upon whose advice and support he could rely, I believe Mr. J. P. Jones would prove a very satisfactory officer. To some extent the same is true of Mr. E. W. Jones, the inspector for the southern

portion of the district, but his district is more rural in character, and the need for sustained activity in sanitary matters is not quite so pronounced as in the northern division.

RECOMMENDATIONS.

The Council should :—

(1.) Provide within a reasonable distance of dwellings a sufficient supply of wholesome water to those parts of their district where the supply is unsatisfactory in respect of quality, or quantity, or accessibility.

(2.) Proceed with the sewerage scheme for Bagillt without delay, and embark upon, in the near future, schemes of sewerage for Ffynnongroew and Mostyn, Northop Hall, and Leeswood. They should also consider the desirability of establishing small drainage schemes for Gwernaffield, Greenfield and Halkyn Catch.

(3.) Themselves undertake the public scavenging of Bagillt, Greenfield, Ffynnongroew, Mostyn, Northop, Northop Hall, Leeswood, Pontblyddyn, and Caerwys.

(4.) Encourage the conversion of privies to pail-closets, so that accumulations of excretal filth are not allowed to persist for long periods in proximity to dwellings. Similarly the use of small covered ashpits, or preferably of sanitary dustbins, should be encouraged.

(5.) Direct that accurate registers be prepared and kept of all dairies, cowsheds and milkshops, slaughter-houses and bakehouses throughout the district, and require that all such premises be systematically inspected by the medical officer or officers of health and by the inspectors of nuisances, and that defects met with be remedied without delay.

(6.) See that systematic inspection of dwelling-houses is carried out by the medical officer or officers of health and by the inspectors of nuisances, and ensure that property owners remedy the defects found.

(7.) Combine with neighbouring councils with a view to providing adequate hospital accommodation for cases of infectious sickness.

HOLYWELL URBAN DISTRICT.

The need for a public water supply for Holywell has been felt for many years. An ample supply of good water is to hand in St. Winifred's Well, but the rights and interests of riparian owners, on the stream below the well, have hitherto prevented sufficient water being abstracted for purposes of a public supply. These obstacles seem now removed, in large measure, and the Urban District Council are taking steps which it is hoped may lead to Holywell being properly supplied with water in the future.

There are some 40 to 50 private wells, and several public wells in Holywell, but so great is the shortage of water all the year round that $\frac{1}{2}$ d. per bucket is charged by water-hawkers in the town.

There is urgent necessity for a modern system of sewers and sewage-disposal works in the town of Holywell to replace the

present antiquated arrangements, and the Council are moving in this matter also. It is only fair to say that Holywell has been burdened, for many years, with a heavy annual charge incurred by the erection of a market and assembly hall. The loan is now paid off, and the Council are therefore in a better position to embark on fresh expenditure.

There are about 400 privy-middens, 200 pail-closets, and a few water-closets in Holywell. The Council contract for the removal of excretal and house refuse, and it would seem that owing to the activity of the present inspector of nuisances, there has been considerable improvement in regard to the removal of filth from the neighbourhood of dwellings. Pail-closets are emptied weekly, but privies and ashpits only on report by the inspector of nuisances. The Council should themselves undertake the removal of excreta and house refuse, and the town should be divided into districts for purposes of scavenging, which should be systematically carried out with sufficient frequency. The inspector of nuisances would then have more time to devote to work other than privy inspection.

There are three common lodging-houses, all of which at the time of my visit were in unsatisfactory condition. One of them was extremely dirty and ill-managed, and at the others I found rooms affording to lodgers as little space as 178 and 186 cubic feet per head. Double beds are mostly in use—a very objectionable practice in lodgings let to single persons. The inspector of common lodging-houses is the local superintendent of police, and in my view he should be replaced by the inspector of nuisances in respect to the supervision of these houses.

The byelaws relating to markets were sanctioned in 1890, but those relating to scavenging, nuisances, common lodging-houses, slaughterhouses, and new streets and buildings, were approved by the Home Secretary as long ago as 1863. These should be revised in accordance with modern requirements.

The Council have made no regulations under the Dairies, Cowsheds and Milkshops Order. Most of the cowsheds seen were inadequately lighted. There was also evidence of the general shortage of water, as floors are not washed down as often as is desirable.

Slaughterhouses appear to be, as a rule, in fair order, but it is usual for the lairs to be within, or to communicate directly with the slaughterhouse, and in one instance I found a stable communicating with a slaughterhouse.

Bakehouses, with one exception, were found to be cleanly kept.

Most of the dwellings in Holywell are very old, and some are extremely dilapidated. A few are back to back, and many are without through ventilation on one or both floors. As a rule the dwellings are kept in clean condition, but with such old property constant inspection is necessary.

The medical officer of health is Dr. Herbert Williams, who is engaged in general practice. Although he possesses no public health diploma, Dr. Williams has completed a course of instruction for such diploma. He appears to be capable and energetic.

Mr. R. A. Thomas, the inspector of nuisances and surveyor, is a trained and competent officer who appears to get many nuisances abated without recourse to legal action.

RECOMMENDATIONS.

The Council should :—

(1.) Provide, with the least delay possible, a satisfactory public water supply for the town, and a modern system of sewers, and sewage disposal works.

(2.) Themselves undertake the systematic scavenging of the town, so that filth may be frequently and regularly removed from the neighbourhood of dwelling-houses without the inspector of nuisances having first to report that such removal is necessary. In this connection, water-closets should be established as generally as is possible, when proper sewers and water supply are available. Where water-closets cannot be provided, pail-closets should replace privy-middens, and sanitary dustbins should be used for ashes. Where fixed receptacles for ashes are allowed, they should be properly roofed and ventilated.

(3.) See that the common lodging-houses are duly registered, inspected, and maintained in a clean and sanitary condition. The inspector of nuisances should be invested with the powers of inspector of common lodging-houses.

(4.) Revise their byelaws in accordance with modern requirements.

(5.) Make regulations under Art. 13 of the Dairies, Cowsheds and Milkshops Order, 1885, and see that these are duly enforced.

(6.) Bring about improvement in the sanitary condition of those dwellings in their district which, by reason of dampness, absence of through ventilation, or otherwise, are likely to affect unfavourably the health of the occupants.

(7.) Combine with neighbouring authorities for hospital purposes.

CONCLUDING OBSERVATIONS AND RECOMMENDATIONS.

In addition to the recommendations already detailed, I would strongly urge the appointment of a whole-time medical officer of health for the districts instead of the present part-time appointments. I regard this as one of the first steps towards securing improvement in the general sanitary condition of these Flintshire districts, and a similar view has been expressed by my colleagues, Drs. Fletcher and Spencer Low, with regard to the adjacent rural districts of St. Asaph and Hawarden which they have recently inspected.

One health officer would be able to superintend, and co-ordinate, the work of the various inspectors of nuisances, and generally to bring about sanitary reforms in a manner which is impossible under existing conditions.

At present in the Holywell Registration District, six District Councils profess to combat insanitation and infectious disease with the aid of four medical officers of health and seven inspectors of nuisances. Each medical officer is entirely independent of the others, and each inspector is practically independent, not only of

the other inspectors and medical officers, but of the medical officer of his own district. In result, uniformity and continuity of action in health matters are wanting.

For example, in Buckley every effort is being made, in a systematic manner, to abolish privy-middens, but in the neighbouring districts of Flint and Mold very little action is taken in this direction.

Similarly with regard to reporting—it is to be expected that, without special direction as to uniformity of arrangement, reports by different medical officers of health would vary, but it is especially undesirable that the annual reports for the northern and southern half of the same district should be arranged on different plans. This obtains in Holywell Rural District.

The Board have had many years experience of the working of combined whole-time medical officer of health appointments, and their experience shows that the advantages of such arrangements far outweigh the supposed disadvantages.

The present is an age of specialisation and there is obvious advantage to sanitary administration in employing a specially trained medical officer of health giving his whole time to his duties rather than the general practitioner, untrained in sanitation, and subject to conflicting interests. With the best intentions, the part-time medical officer of health, who receives as a rule but a small salary, tends to fall into one of two classes; he either does his official duty thoroughly, and thereby offends, and perhaps loses, valuable patients, and possibly in the end loses his appointment also, or he does but little active public health work; or perhaps he confines his activity to tendering good advice in his reports to his Council. This advice the Council may disregard, and, naturally enough, the medical officer does not then feel disposed to urge persistently, and personally at the Council, measures known to be unpalatable to some of his best patients. The whole-time medical officer is independent of patients, and he is, moreover, in virtue of his special training of great assistance to the various inspectors of nuisances in his district, who recognise him as an authority, whereas they are apt to act independently of a part-time untrained medical officer. In a well ordered district the medical officer of health and the inspector of nuisances should be in constant touch with one another, and the general direction of the duties of the inspector should be with the medical officer. Detailed work should fall largely to the inspector, but lines of policy, and general courses of action, should be in the hands of the medical officer, who should see that sanitary inspection is systematised, and that appropriate attention is given to the needs of different districts.

In the Holywell Registration District there is too little conference between medical officers of health and inspectors of nuisances, and in no case has the medical officer direct control of the inspector. I am satisfied that, especially in both divisions of the Holywell Rural District, in Mold, and in Flint, the inspectors of nuisances would do better work if they had, within and without the Councils, the support, advice, and direction of a capable sanitarian. Throughout the Holywell Registration District, there has been no systematic attention given, on uniform lines, to dairies, cowsheds and milkshops, to slaughterhouses, to bakehouses, and the

like. Generally, in fact, sanitary work in the district needs the co-ordination which could be effected by a competent medical officer of health giving his whole time to his duties.

I think the chief arguments advanced against whole-time medical officers of health for large districts are :—

- (1.) That the area may be too great for the officer to cover conveniently ;
- (2.) That he might be wanted urgently in two parts of the district at the same time ;
- (3.) That his presence might be required at the meetings of two Councils at the same hour ;
- (4.) That he cannot have such good knowledge of local insanitary conditions as has a medical man residing on the spot ;
- (5.) That increased charges upon the rates would have to be incurred to cover the larger salary.

Against these objections I would submit, in the present instance :—

- (1.) That, exclusive of two small detached portions, Flintshire measures only some 24 miles by 7 miles, and that with the use of railways, and other means of conveyance, a medical officer residing in a central part of the county would have no difficulty in efficiently working the district dealt with in this report.
- (2.) It is unlikely that it would be of vital importance for the medical officer of health to be in two places at the same time, and I would point out here, as Dr. Parsons did in 1881, that sudden and urgent calls are far more likely to be made upon a private practitioner than upon a health officer, and moreover that in times of epidemic when the services of a medical officer of health are most required, he is, if in private practice, most busy attending to the wants of his private patients.
- (3.) It is not the rule at present in the Holywell Registration District for medical officers to attend all Council meetings. If it were considered essential for a whole-time medical officer to attend all meetings, the arranging of this would not present any insuperable difficulty.
- (4.) In my experience, the fact of being a local resident seems to dull rather than to intensify appreciation of nuisances. The stranger comes fresh to the place, and he is, moreover, independent of personal considerations arising from local influence which are apt to create difficulties in the way of prompt abatement of nuisances.
- (5.) There is no doubt that the salary of a whole-time medical officer of health for the Holywell Registration District would be in excess of the combined salaries of the present part-time officers. Their salaries now amount in total to £225 per annum. A whole-time medical officer of health should receive not less than £500 per annum. The present salaries are half repaid from county funds,

and consequently populous places like Buckley, Mold, and Connah's Quay pay directly, but £15 per annum for the services of a medical officer of health; a figure considerably below what such places should expect to pay. I see no reason why St. Asaph Rural District and Hawarden Rural District, and perhaps also Rhyl and Prestatyn, should not be included in the combination, and in that event the total of present salaries would be raised to £347 or £437 respectively.

In either case the additional amount to be provided would be but small compared with the advantage to be derived.

The salaries for the various medical officers of health referred to are as follows :—

	£	
Flint Borough	40	per annum.
Buckley U.D.	30	"
Connah's Quay U.D.	30	"
Holywell U.D.	25	"
Mold U.D.	30	"
Prestatyn U.D.	30	"
Rhyl U.D.	60	"
Hawarden R.D.	80	"
Holywell R.D.(Holywell)	35	"
" (Mold)	35	"
St. Asaph R.D. (Flint)...	42	"
Total	£437	"

In regard to the question of isolation hospital provision in Flintshire, I understand some attempt at combination was made in the past, but that it came to nothing as the cost was held to be prohibitive. Since then several hospitals have been erected; but it is just this multiplication of small hospitals which leads to unnecessary expense. With combination of districts both the number of hospital buildings and the multiplicity of administrative appointments are diminished, while efficiency is increased.

At present Holywell Rural District has a temporary hospital at Bedw for smallpox. Mold has a similar one at Argoed farm, Connah's Quay has a temporary hospital, not reserved for smallpox, but seldom used at all, and Flint has the use, on sufferance, for hospital purposes, of two rooms in an old gaol. None of the districts has any form of steam disinfecting apparatus, and several of the medical officers of health have complained in their annual reports of the inconvenience thereby occasioned.

It would be well, in my view, that one small-pox hospital and two hospitals for infectious diseases, other than small-pox, be available for the Holywell Registration District; and with a little arrangement this could easily be obtained.

Permanent hospitals are to be desired, but meanwhile a beginning might be made with the existing temporary buildings. The

Connah's Quay hospital, and the Mold hospital, might be combined, at Argoed Farm or elsewhere, and be used for cases of infectious disease other than small-pox, occurring in the southern half of the registration district. The existing hospital at Bedw, with additions, might be used there or elsewhere for cases other than small-pox occurring in the northern part of the district. One new hospital for small-pox could serve the entire district, and should be erected on a sparsely populated area, within convenient distance of the chief aggregations of population, that is to say, somewhat to the south of the geographical centre of the district.

Dr. Edward Williams, medical officer of health for Mold, has frequently advocated a scheme somewhat on the lines of the above, and all the other medical officers of health have, from time to time, urged the necessity for the provision of adequate hospital accommodation.

In connection with the want of such accommodation, a word must be said with regard to the prevalence of diphtheria in the Holywell Registration District. For many years this disease has been unduly prevalent in Bagillt, Holywell, Greenfield, and other places bordering the estuary of the Dee. A reference to the accompanying table shows that, although there have been epidemic outbreaks of diphtheria in all the districts during the last ten years, the disease is endemic in the Holywell division of the Holywell Rural District, and to a smaller extent in Holywell itself.

Locally, the persistence of diphtheria hereabouts is attributed to the damp and low-lying character of the district. That the portion of the district containing the bulk of the population has this character is undoubted, and it is worthy of note that it is in the undrained populous places that diphtheria persists. Flint and Connah's Quay border on the estuary of the Dee, but they are fairly well drained. Mold is sewered, and Buckley stands very high, and consequently dampness of subsoil does not occur. To a less extent this applies generally to the Mold division of the Holywell Rural District.

It would be useful to observe the effect on the prevalence of diphtheria of effective isolation of all cases which occur in the Holywell Registration District. At present there is no systematic attempt at isolation, and on looking through the registers of notifications, one cannot fail to observe the number of secondary cases. In one house in Holywell no fewer than seven cases of diphtheria occurred between August 26th and October 16th, 1907. It is probable that many of these would not have occurred if the first cases had been promptly removed to hospital, and retained there until they were free from infection.

I would therefore urge most strongly that a systematic and sustained effort be made to grapple with the diphtheria question, in this District, by the aid of isolation in hospital; together with the bacteriological examination of doubtful throats.

In concluding this report I have to tender my most cordial thanks to the various Councils and their officers, from whom I received every possible assistance throughout a prolonged inspection.

E. P. MANBY.

Table showing the number of cases of diphtheria, including membranous croup, notified in each sanitary district in the Holywell Registration District, year by year during the last ten years, together with the total number of cases, and the incidence per 10,000 of the population.

Districts (with the 1901 census population in brackets).	1899.	1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	Total for 10 years.	Mean Annual Incidence per 10,000.
Buckley U. (5,780)	0	0	2	1	48	16	0	3	1	3	74	12·8
Connah's Quay U. (3,396)	1	1	6	0	1	6	4	7	17	70	113	33·3
Flint Borough (4,625)	23	4	5	7	3	3	0	5	7	1	58	12·5
Mold U. (4,263)	8	0	2	35	1	5	2	3	9	7	72	16·9
Holywell R. (Holywell division 13,906)	132	36	39	37	55	49	38	76	107	65	634	45·6
Holywell R. (Mold division 10,093)	9	2	33	17	12	10	14	13	18	38	166	16·4
Holywell U. (2,652)	13	2	7	2	11	4	3	17	24	19	102	38·5



